ELSEVIER

Journal of Alloys and Compounds 265 (1998) 321

Journal of ALLOYS AND COMPOUNDS

Author Index of Volume 265

Adachi, G.-y., 125, 234
Alaoui-Elbelghiti, M., 160
André, G., 56, 61
Andreev, A.V., 38
Anres, P., 201
Apostolov, A., 1
Arcas, J., 23
Asai, O., 132
Awasthi, A., 190

Babu, R., 137
Bara, J.J., 70
Bezdushnyi, R., 1
Bhatt, Y.J., 190
Blažina, Ž., 185
Bogacz, B.F., 70
Book, D., 273
Bourée-Vigneron, F., 209
Bradhurst, D.H., 281
Bros, J.P., 160, 201
Burns, J.B., 146
Buschow, K.H.J., 56, 61

Černý, R., 311
Chakradhar, R.P.S., 29
Chen, D.-X., 23
Chen, J., 281
Cho, W.-S., 132
Chuntonov, K.A., 93
Cieślak, J., 297
Corbett, J.D., 104
Crespo, P., 23
Cui, K., 269
Cui, N., 305

Damianova, R., 1
De, M., 249
de Boer, F.R., 26
de Pauw, V., 286
de Vidales, J.L.M., 291
Dou, S.X., 281
Drašner, A., 185
Du, C., 81
Dubiel, S.M., 297

Ettmayer, P., 215

Filipek, E., 121
Fleurial, J.-P., 170
Fruchart, D., 1
Fujino, T., 115

Gajbhiye, N.S., 87
Gambino, M., 160
Garg, S.P., 190
Gaune-Escard, M., 201

Haire, R.G., 146
Hernando, A., 23
Hilscher, G., 6
Homma, M., 273
Hu, J.F., 26

Iacob, C., 286
Ijjaali, I., 196
Inoue, S., 234
Ishida, K., 273
Isnard, O., 1
Isomura, A., 257

Jiang, J., 125
Jin, T., 234
Joubert, J.-M., 311

Kagotani, T., 273
Kainuma, R., 273
Kakihana, M., 132
Karla, I., 42
Karpinsky, O.G., 170
Khabachev, M.N., 93
Kondo, S., 273
Kozlovskaya, I.K., 38
Kral, C., 215
Kretova, M.A., 170
Krishnamurthy, N., 190
Kucharski, Z., 15
Kumta, P.N., 96

Latroche, M., 209, 311
Lei, Y., 264
Lemarchand, D., 286
Lengauer, W., 215
Leon-Escamilla, E.A., 104
Li, W., 81
Liu, H.K., 281
Liu, Y.-H., 176
López, F.A., 291
López-Delgado, A., 291
Luo, J.L., 305

Ma, L., 81
Machida, K.-i., 125, 234
Malaman, B., 77, 196
Masuda, H., 115
Matsuya, S., 240
Michor, H., 6
Miller, G., 140
Multigner, M., 23
Murali, A., 29
Murase, K., 125

Nagarajan, K., 137
Nakagawa, M., 240
Nakamura, H., 273
Norlidah, N.M., 77

Ohta, M., 240
Okada, M., 273
Ouchida, R., 240
Ozaki, T., 125

Pędziwiatr, A.T., 70
Peng, D.-L., 49
Percheron-Guégan, A., 209, 311
Peterson, J.R., 146
Pierre, J., 42
Pradhan, S.K., 249
Prasad, S., 87
Pszczoła, J., 15

Qin, W.D., 26

Rafaja, D., 215
Rao, J.L., 29
Ressouche, E., 77
Riabov, A.B., 6
Rodríguez-Carvajal, J., 56, 61
Routsi, Ch.D., L1

Sakai, T., 257
Salamakha, P., L1
Sato, N., 115
Schobinger-Papamantellos, P., 56, 61
Sechovský, V., 38
Shee, S.K., 249
Shelimova, L.E., 170
Shiraishi, T., 240
Skolozdra, R.V., 42
Smith, M., 140
Sologub, O., L1
Šorgić, B., 185
Soubeyroux, J.L., 1
Stanev, N., 1
Stefański, P., 70
Sugimoto, S., 273
Sumiyama, K., 49
Suwalski, J., 15
Suzuki, K., 49
Suzuki, Y., 132
Szlaferek, A., 70

Tabero, P., 121
Takahashi, K., 257
Tang, N., 26
Tsukahara, M., 257

Ueda, Y., 190

Vassiliev, V., 160
Vazquez, M., 23
Velazquez, J., 23
Venkataramani, R., 190
Venturini, G., 77, 196
Vila, E., 291

Wakeshima, M., 115
Walczak, J., 121
Wang, C., 264
Wang, J.L., 26
Wang, K.-Y., 23
Wang, L.-S., 153
Wang, M., 140
Wang, Q., 264
Wang, S., 140
Wang, Y., 273
Wang, Z.-C., 153
Weil, K.S., 96
Welter, R., 196
Wiesinger, G., 6
Winiarska, B., 15
Wrzeciono, A., 70
Wu, J.S., 269

Xu, Y., 81

Yakinthos, J.K., L1
Yamada, K., 115
Yang, F.M., 26
Yang, J.Y., 269
Yang, X., 264
Yartys, V.A., 6
Yashima, M., 132
Yoshimura, M., 132
Yvon, K., 311

Zavaliy, I.Yu., 6
Zhang, T.J., 269
Zhang, W., 264
Zhong, X.P., 26
Zhu, G., 264
Živković, D., 176
Živković, Ž., 176
Zrineh, A., 160
Żurek, Z., 297

Elsevier Science S.A.
PII 0925-8388(97)00632-4

ELSEVIER

Journal of Alloys and Compounds 265 (1998) 323–327

Journal of ALLOYS AND COMPOUNDS

Subject Index of Volume 265

AC impedance spectroscopy
AC impedance studies of the discharge process of a Mg_2Ni-type hydrogen storage alloy electrode in 6M KOH solution 305
Alloy thermodynamics
comparative study of thermodynamic predicting methods applied to the Pb–Zn–Ag system 176
AuCu alloy
shape restoration effect associated with order–disorder transformation in equiatomic AuCu and AuCu–Ga alloys 240

Bismuth
X-Ray study of the nGeTe·$m$$Bi_2Te_3$ mixed layered tetradymite-like compounds 170
Bulk samples
critical review on the elastic properties of transition metal carbides, nitrides and carbonitrides 215

Calorimetry
calorimetric measurements on rare earth pyrohafnates $RE_2Hf_2O_7$ (RE=La,Eu,Gd) 137
$Ca_{1-x}Sr_xTiO_3$
low-temperature synthesis of crystallized $Ca_{1-x}Sr_xTiO_3$ solid-solution films on titanium substrates by a modified hydrothermal–electrochemical technique 132
$CeAl_4Cl_{15}$
thermodynamic properties of the rare earth element vapor complexes $LaAl_4Cl_{15}$, $CeAl_4Cl_{15}$ and $HoAl_2Cl_9$ 153
CeFeSi type intermetallics
X-Ray single crystal refinements on some CeFeSi-type RTX compounds (R=RE elements; T=Mn, Fe, Co, Ru; X=Si, Ge). Evolution of the chemical bonds 196
Chemical vapor
mutual separation characteristics for the yttrium and lanthanides with chemical vapor transport process mediated by metal chloride gaseous complexes 125
Citrate
magnetic studies of nanosized nickel ferrite particles synthesized by the citrate precursor technique 87
Copper ions
electron paramagnetic resonance and optical absorption studies of Cu^{2+} ions in alkali barium borate glasses 29
Corrosion
investigation of scales resulted from a high-temperature sulphidation of Fe–Cr alloys 297
Co_3W_3N
synthesis and structural investigation of a new ternary transition metal nitride, Co_3W_3N 96
Crystal characteristics
influence of amorphization on electrode performances of AB_2 type hydrogen storage alloys 264
Crystal structure
new ternary representatives of the Fe_2P structure type L1 $(Hf,Zr)_2Fe$ and $Zr_4Fe_2O_{0.6}$ compounds and their hydrides: phase equilibria, crystal structure and magnetic properties 6
Slater–Pauling dependence of $Dy[(Fe_{0.4}Co_{0.6})_{1-x}Al_x]_2$ intermetallics 15
a neutron diffraction study of magnetic ordering in $DyMn_{6-x}Cr_xGe_6$ compounds (I) 56
a neutron diffraction study of magnetic ordering in $DyMn_{6-x}Cr_xGe_6$ compounds (II) 61
on the localization of the transition metal atoms in $HoFe_{0.5}Si_2$ and in the related RFe_xSi_2 (R=heavy RE element) compounds 77
synthesis, crystal structure refinement and electrical properties of uranium oxysulfide, UOS 115
X-Ray study of the nGeTe·$m$$Bi_2Te_3$ mixed layered tetradymite-like compounds 170
a study of structural and thermodynamic properties of the $YNi_{5-x}Al_x$–hydrogen system 185
Crystallized films
low-temperature synthesis of crystallized $Ca_{1-x}Sr_xTiO_3$ solid-solution films on titanium substrates by a modified hydrothermal–electrochemical technique 132
Crystallographic structure
investigation of the crystallographic structures of $LaNi_4CoD_{4.4}$ and $LaNi_{3.55}Mn_{0.4}Al_{0.3}Co_{0.75}D_x$ (x=2.0 and 4.6 D/f.u.) by neutron powder diffraction 209
Curie temperature
structure and magnetic properties of $GdMn_{1-x}Co_xSi$ compounds 26

Deoxidation
refining of tantalum by silicon deoxidation 190
Deuteride
investigation of the crystallographic structures of $LaNi_4CoD_{4.4}$ and $LaNi_{3.55}Mn_{0.4}Al_{0.3}Co_{0.75}D_x$ (x=2.0 and 4.6 D/f.u.) by neutron powder diffraction 209
Differential thermal analysis
thermodynamics of the Ag–Bi–In system (with $0<x_{Ag}<0.5$) 160
Diffraction line broadening
powder diffraction line broadening in hydrogen activated $LaNi_{3.55}Mn_{0.4}Al_{0.3}Co_{0.75}$ and its hydride studied by synchrotron radiation 311

Electrical conductivity
synthesis, crystal structure refinement and electrical properties of uranium oxysulfide, UOS 115
Electrochemical capacity
influence of amorphization on electrode performances of AB_2 type hydrogen storage alloys 264
Electrode characteristics
AC impedance studies of the discharge process of a Mg_2Ni-type hydrogen storage alloy electrode in 6M KOH solution 305
Electron paramagnetic resonance
electron paramagnetic resonance and optical absorption studies of Cu^{2+} ions in alkali barium borate glasses 29
Electronic conduction
physical properties and giant magnetoresistance in RNiSb compounds 42

Elsevier Science S.A.
PII 0925-8388(97)00633-6

Enthalpies
standard enthalpies of formation for europium, gadolinium, and lutetium oxychlorides, calculated from measured enthalpies of solution 146
Enthalpy of formation
thermodynamics of the (Rh–Ga) system 201
Enthalpy of mixing
thermodynamics of the (Rh–Ga) system 201
Eta-carbide structure
synthesis and structural investigation of a new ternary transition metal nitride, Co_3W_3N 96
Europium
standard enthalpies of formation for europium, gadolinium, and lutetium oxychlorides, calculated from measured enthalpies of solution 146
Exciton migration
synthesis and fluorescent properties of europium–polymer complexes containing naphthoate ligand 81

Fe–Cr–N films
thermomagnetic behaviors of Fe–Cr–N films with perpendicular magnetic anisotropy 49
$Fe_{73.5}CuNb_3Si_{13.5}B_9$
multicomponent mechanical alloying of Fe–Cu–Nb–Si–B 269
Fe-Mössbauer spectroscopy
on the localization of the transition metal atoms in $HoFe_{0.5}Si_2$ and in the related RFe_xSi_2 (R=heavy RE element) compounds 77
investigation of scales resulted from a high-temperature sulphidation of Fe–Cr alloys 297
Ferrite
magnetic studies of nanosized nickel ferrite particles synthesized by the citrate precursor technique 87
Ferromagnetism
magnetic properties of the $UCo_{1-x}Pt_xAl$ solid solutions 38
Fluidized bed
influence of the nitriding process on the nitrogen distribution in the bulk magnetic compound $Sm_2(Fe,Co)_{17}$ 286
Fluorescence
synthesis and fluorescent properties of europium–polymer complexes containing naphthoate ligand 81

Gadolinium
standard enthalpies of formation for europium, gadolinium, and lutetium oxychlorides, calculated from measured enthalpies of solution 146
Gaseous complexes
mutual separation characteristics for the yttrium and lanthanides with chemical vapor transport process mediated by metal chloride gaseous complexes 125
Germanium
X-Ray study of the nGeTe·$m$$Bi_2Te_3$ mixed layered tetradymite-like compounds 170
Giant magnetoresistance
giant magnetoresistance of Cu_3Al–Cu_2MnAl melt-spun ribbons 273
Glasses
electron paramagnetic resonance and optical absorption studies of Cu^{2+} ions in alkali barium borate glasses 29

Heusler
giant magnetoresistance of Cu_3Al–Cu_2MnAl melt-spun ribbons 273
High-chromium steels
investigation of scales resulted from a high-temperature sulphidation of Fe–Cr alloys 297
High temperature calorimetry
thermodynamics of the (Rh–Ga) system 201
High temperature materials
effect of alloying, on the microstructure and mechanical properties of Ni_3Al 249
$HoAl_2Cl_9$
thermodynamic properties of the rare earth element vapor complexes $LaAl_4Cl_{15}$, $CeAl_4Cl_{15}$ and $HoAl_2Cl_9$ 153
Hydride
magnetic properties and magnetic structure of $HoFe_{11}Ti$ and its hydrides 1
Hydride electrode
surface and electrode properties of $Zr(V_{0.25}Ni_{0.75})_2$ alloy treated with ultrasound-solution 281
AC impedance studies of the discharge process of a Mg_2Ni-type hydrogen storage alloy electrode in 6M KOH solution 305
Hydrides
$(Hf,Zr)_2Fe$ and $Zr_4Fe_2O_{0.6}$ compounds and their hydrides: phase equilibria, crystal structure and magnetic properties 6
Hydrogen impurities
hydrogen stabilization. Nine isotypic orthorhombic A_5Pn_3H phases (among A=Ca, Sr, Ba, Sm, Eu, Yb; Pn=Sb, Bi) formerly described as binary β-Yb_5Sb_3-type compounds 104
Hydrogen sorption
a study of structural and thermodynamic properties of the $YNi_{5-x}Al_x$–hydrogen system 185
Hydrogen storage alloy
influence of oxygen on hydrogen storage and electrode properties for micro-designed V-based battery alloys 257
Hyperfine interactions
Slater–Pauling dependence of $Dy[(Fe_{0.4}Co_{0.6})_{1-x}Al_x]_2$ intermetallics 15

Indexing
synthesis and some properties of the phase $Cr_2V_4O_{13}$ 121
Intermetallic compounds
magnetic properties and magnetic structure of $HoFe_{11}Ti$ and its hydrides 1
Mössbauer spectral and magnetic investigations of $RFe_{10}Cr_2$ compounds (R=rare earth) 70
thermodynamics of the (Rh–Ga) system 201
Intermetallics
Slater–Pauling dependence of $Dy[(Fe_{0.4}Co_{0.6})_{1-x}Al_x]_2$ intermetallics 15
Interstitial hydrides
hydrogen stabilization. Nine isotypic orthorhombic A_5Pn_3H phases (among A=Ca, Sr, Ba, Sm, Eu, Yb; Pn=Sb, Bi) formerly described as binary β-Yb_5Sb_3-type compounds 104
IR spectroscopy
synthesis and some properties of the phase $Cr_2V_4O_{13}$ 121

Kinetics
influence of the nitriding process on the nitrogen distribution in the bulk magnetic compound $Sm_2(Fe,Co)_{17}$ 286

$LaAl_4Cl_{15}$
thermodynamic properties of the rare earth element vapor complexes $LaAl_4Cl_{15}$, $CeAl_4Cl_{15}$ and $HoAl_2Cl_9$ 153
Lanthanide complexes
luminescence properties of lanthanide complexes and their silica-based composites 234
Lanthanides
new ternary representatives of the Fe_2P structure type L1
Liquid alloys
thermodynamics of the (Rh–Ga) system 201
Liquidus surface
thermodynamics of the Ag–Bi–In system (with $0<x_{Ag}<0.5$) 160
Low-temperature synthesis
low-temperature synthesis of crystallized $Ca_{1-X}Sr_XTiO_3$ solid-solution films on titanium substrates by a modified hydrothermal–electrochemical technique 132

Luminescence properties
luminescence properties of lanthanide complexes and their silica-based composites 234
Lutetium
standard enthalpies of formation for europium, gadolinium, and lutetium oxychlorides, calculated from measured enthalpies of solution 146

Magnesium alloy
AC impedance studies of the discharge process of a Mg_2Ni-type hydrogen storage alloy electrode in 6M KOH solution 305
Magnetically ordered materials
physical properties and giant magnetoresistance in RNiSb compounds 42
Magnetic interaction
structure and magnetic properties of $GdMn_{1-x}Co_xSi$ compounds 26
Magnetic moment
structure and magnetic properties of $GdMn_{1-x}Co_xSi$ compounds 26
Magnetic ordering
a neutron diffraction study of magnetic ordering in $DyMn_{6-x}Cr_xGe_6$ compounds (I) 56
a neutron diffraction study of magnetic ordering in $DyMn_{6-x}Cr_xGe_6$ compounds (II) 61
Magnetic properties
magnetic properties and magnetic structure of $HoFe_{11}Ti$ and its hydrides 1
$(Hf,Zr)_2Fe$ and $Zr_4Fe_2O_{0.6}$ compounds and their hydrides: phase equilibria, crystal structure and magnetic properties 6
magnetic properties of the compounds $Er_{1-x}Nd_xFe_{11.35}Nb_{0.65}$ ($0 \leq x \leq 0.5$) 23
Magnetic properties of $RFe_{10}Cr_2$
Mössbauer spectral and magnetic investigations of $RFe_{10}Cr_2$ compounds (R=rare earth) 70
Magnetic structure
a neutron diffraction study of magnetic ordering in $DyMn_{6-x}Cr_xGe_6$ compounds (I) 56
a neutron diffraction study of magnetic ordering in $DyMn_{6-x}Cr_xGe_6$ compounds (II) 61
Magnetotransport effects
physical properties and giant magnetoresistance in RNiSb compounds 42
Mechanical alloying
multicomponent mechanical alloying of Fe–Cu–Nb–Si–B 269
Melt-spinning
giant magnetoresistance of Cu_3Al–Cu_2MnAl melt-spun ribbons 273
Metal hydride
powder diffraction line broadening in hydrogen activated $LaNi_{3.55}Mn_{0.4}Al_{0.3}Co_{0.75}$ and its hydride studied by synchrotron radiation 311
Metamagnetism
magnetic properties of the $UCo_{1-x}Pt_xAl$ solid solutions 38
Microstructure
influence of oxygen on hydrogen storage and electrode properties for micro-designed V-based battery alloys 257
Microstructure modification
effect of alloying, on the microstructure and mechanical properties of Ni_3Al 249
Modified hydrothermal–electrochemical technique
low-temperature synthesis of crystallized $Ca_{1-x}Sr_xTiO_3$ solid-solution films on titanium substrates by a modified hydrothermal–electrochemical technique 132
Mössbauer
multicomponent mechanical alloying of Fe–Cu–Nb–Si–B 269
Mössbauer effect
Slater–Pauling dependence of $Dy[(Fe_{0.4}Co_{0.6})_{1-x}Al_x]_2$ intermetallics 15
Mössbauer spectral and magnetic investigations of $RFe_{10}Cr_2$ compounds (R=rare earth) 70
Mutual separation
mutual separation characteristics for the yttrium and lanthanides with chemical vapor transport process mediated by metal chloride gaseous complexes 125

Nanocrystal
multicomponent mechanical alloying of Fe–Cu–Nb–Si–B 269
Nanocrystalline zinc ferrite
synthesis of nanocrystalline zinc ferrite powders from sulphuric pickling waste water 291
Neutron diffraction
magnetic properties and magnetic structure of $HoFe_{11}Ti$ and its hydrides 1
a neutron diffraction study of magnetic ordering in $DyMn_{6-x}Cr_xGe_6$ compounds (I) 56
a neutron diffraction study of magnetic ordering in $DyMn_{6-x}Cr_xGe_6$ compounds (II) 61
on the localization of the transition metal atoms in $HoFe_{0.5}Si_2$ and in the related RFe_xSi_2 (R=heavy RE element) compounds 77
Ni–Al alloys
effect of alloying, on the microstructure and mechanical properties of Ni_3Al 249
Nickel-hydride battery
powder diffraction line broadening in hydrogen activated $LaNi_{3.55}Mn_{0.4}Al_{0.3}Co_{0.75}$ and its hydride studied by synchrotron radiation 311
Ni–MH battery
AC impedance studies of the discharge process of a Mg_2Ni-type hydrogen storage alloy electrode in 6M KOH solution 305
Nitrogenation
influence of the nitriding process on the nitrogen distribution in the bulk magnetic compound $Sm_2(Fe,Co)_{17}$ 286
Nuclear waste management
calorimetric measurements on rare earth pyrohafnates $RE_2Hf_2O_7$ (RE=La,Eu,Gd) 137

Optical absorption spectrum
electron paramagnetic resonance and optical absorption studies of Cu^{2+} ions in alkali barium borate glasses 29
Optical basicity
electron paramagnetic resonance and optical absorption studies of Cu^{2+} ions in alkali barium borate glasses 29
Oxychlorides
standard enthalpies of formation for europium, gadolinium, and lutetium oxychlorides, calculated from measured enthalpies of solution 146
Oxygen
influence of oxygen on hydrogen storage and electrode properties for micro-designed V-based battery alloys 257
Oxysulfide
synthesis, crystal structure refinement and electrical properties of uranium oxysulfide, UOS 115

Partial molar Gibbs energy
thermodynamics of the Ag–Bi–In system (with $0 < x_{Ag} < 0.5$) 160
Permanent magnet
influence of the nitriding process on the nitrogen distribution in the bulk magnetic compound $Sm_2(Fe,Co)_{17}$ 286
Perpendicular magnetic anisotropy
thermomagnetic behaviors of Fe–Cr–N films with perpendicular magnetic anisotropy 49
Phase diagram
phase diagram of the system K-Te 93
thermodynamics of the (Rh–Ga) system 201
Phase transformation
shape restoration effect associated with order–disorder transformation in equiatomic AuCu and AuCu–Ga alloys 240

Poisson ratio
critical review on the elastic properties of transition metal carbides, nitrides and carbonitrides 215
Polymer complex
synthesis and fluorescent properties of europium–polymer complexes containing naphthoate ligand 81
Porosity
critical review on the elastic properties of transition metal carbides, nitrides and carbonitrides 215
Potentiometry
thermodynamics of the Ag–Bi–In system (with $0<x_{Ag}<0.5$) 160
Powder neutron diffraction
investigation of the crystallographic structures of $LaNi_4CoD_{4.4}$ and $LaNi_{3.55}Mn_{0.4}Al_{0.3}Co_{0.75}D_x$ (x=2.0 and 4.6 D/f.u.) by neutron powder diffraction 209
Powder X-ray diffraction
synthesis and structural investigation of a new ternary transition metal nitride, Co_3W_3N 96
Precursor
magnetic studies of nanosized nickel ferrite particles synthesized by the citrate precursor technique 87
Pressure–composition isotherms
influence of oxygen on hydrogen storage and electrode properties for micro-designed V-based battery alloys 257
Properties
hydrogen stabilization. Nine isotypic orthorhombic A_5Pn_3H phases (among A=Ca, Sr, Ba, Sm, Eu, Yb; Pn=Sb, Bi) formerly described as binary β-Yb_5Sb_3-type compounds 104
Pyrochlore
calorimetric measurements on rare earth pyrohafnates $RE_2Hf_2O_7$ (RE=La,Eu,Gd) 137
Pyrohafnates
calorimetric measurements on rare earth pyrohafnates $RE_2Hf_2O_7$ (RE=La,Eu,Gd) 137

Quenching experiments
thermodynamic properties of the rare earth element vapor complexes $LaAl_4Cl_{15}$, $CeAl_4Cl_{15}$ and $HoAl_2Cl_9$ 153

Rare earth
synthesis and fluorescent properties of europium–polymer complexes containing naphthoate ligand 81
Rare earth iron-rich compounds
magnetic properties of the compounds $Er_{1-x}Nd_xFe_{11.35}Nb_{0.65}$ ($0\leq x\leq 0.5$) 23
Rare earth nickel antimonides
physical properties and giant magnetoresistance in RNiSb compounds 42
Rare earths
mutual separation characteristics for the yttrium and lanthanides with chemical vapor transport process mediated by metal chloride gaseous complexes 125
calorimetric measurements on rare earth pyrohafnates $RE_2Hf_2O_7$ (RE=La,Eu,Gd) 137
Rb_4TmI_6 synthesis
the synthesis and crystal structure of Rb_4TmI_6: Lattice energy calculations on networks of condensed cubes 140
Reactivity
magnetic studies of nanosized nickel ferrite particles synthesized by the citrate precursor technique 87
Refining
refining of tantalum by silicon deoxidation 190
Rhodium–gallium alloy
thermodynamics of the (Rh–Ga) system 201
Rietveld refinement
synthesis and structural investigation of a new ternary transition metal nitride, Co_3W_3N 96

Semiconductors
physical properties and giant magnetoresistance in RNiSb compounds 42
Shape memory effect
shape restoration effect associated with order–disorder transformation in equiatomic AuCu and AuCu–Ga alloys 240
Silica-based composites
luminescence properties of lanthanide complexes and their silica-based composites 234
Silver–bismuth–indium alloys
thermodynamics of the Ag–Bi–In system (with $0<x_{Ag}<0.5$) 160
$SiO_{(v)}$
refining of tantalum by silicon deoxidation 190
Slater–Pauling dependence
Slater–Pauling dependence of $Dy[(Fe_{0.4}Co_{0.6})_{1-x}Al_x]_2$ intermetallics 15
Sm_2Fe_{17}
influence of the nitriding process on the nitrogen distribution in the bulk magnetic compound $Sm_2(Fe,Co)_{17}$ 286
Sol–gel method
luminescence properties of lanthanide complexes and their silica-based composites 234
Spin reorientation
magnetic properties and magnetic structure of $HoFe_{11}Ti$ and its hydrides 1
Stannides
new ternary representatives of the Fe_2P structure type L1
Structure determination
X-Ray single crystal refinements on some CeFeSi-type RTX compounds (R=RE elements; T=Mn, Fe, Co, Ru; X=Si, Ge). Evolution of the chemical bonds 196
Sulfurization
synthesis, crystal structure refinement and electrical properties of uranium oxysulfide, UOS 115
Sulphidation
investigation of scales resulted from a high-temperature sulphidation of Fe–Cr alloys 297
Sulphuric pickling waste water
synthesis of nanocrystalline zinc ferrite powders from sulphuric pickling waste water 291
Surface state
surface and electrode properties of $Zr(V_{0.25}Ni_{0.75})_2$ alloy treated with ultrasound-solution 281
Synchrotron radiation
powder diffraction line broadening in hydrogen activated $LaNi_{3.55}Mn_{0.4}Al_{0.3}Co_{0.75}$ and its hydride studied by synchrotron radiation 311
Synthesis
synthesis and some properties of the phase $Cr_2V_4O_{13}$ 121
Synthesis and structure
hydrogen stabilization. Nine isotypic orthorhombic A_5Pn_3H phases (among A=Ca, Sr, Ba, Sm, Eu, Yb; Pn=Sb, Bi) formerly described as binary β-Yb_5Sb_3-type compounds 104
System K-Te
phase diagram of the system K-Te 93

Tantalum
refining of tantalum by silicon deoxidation 190
$TaO_{(v)}$
refining of tantalum by silicon deoxidation 190
Tellurium
X-Ray study of the nGeTe·$m$$Bi_2Te_3$ mixed layered tetradymite-like compounds 170
Ternary nitride
synthesis and structural investigation of a new ternary transition metal nitride, Co_3W_3N 96

Ternary rare earth compounds
X-Ray single crystal refinements on some CeFeSi-type RTX compounds (R=RE elements; T=Mn, Fe, Co, Ru; X=Si, Ge). Evolution of the chemical bonds 196
Ternary rare earth germanides
a neutron diffraction study of magnetic ordering in $DyMn_{6-x}Cr_xGe_6$ compounds (I) 56
a neutron diffraction study of magnetic ordering in $DyMn_{6-x}Cr_xGe_6$ compounds (II) 61
Ternary rare earth silicides
on the localization of the transition metal atoms in $HoFe_{0.5}Si_2$ and in the related RFe_xSi_2 (R=heavy RE element) compounds 77
Ternary system Pb–Zn–Ag
comparative study of thermodynamic predicting methods applied to the Pb–Zn–Ag system 176
Thermodynamic functions
calorimetric measurements on rare earth pyrohafnates $RE_2Hf_2O_7$ (RE=La,Eu,Gd) 137
Thermodynamic predicting methods
comparative study of thermodynamic predicting methods applied to the Pb–Zn–Ag system 176
Thermodynamics
thermodynamic properties of the rare earth element vapor complexes $LaAl_4Cl_{15}$, $CeAl_4Cl_{15}$ and $HoAl_2Cl_9$ 153
thermodynamics of the Ag–Bi–In system (with $0<x_{Ag}<0.5$) 160
thermodynamics of the (Rh–Ga) system 201
Thermomagnetic behavior
thermomagnetic behaviors of Fe–Cr–N films with perpendicular magnetic anisotropy 49
Thin films
critical review on the elastic properties of transition metal carbides, nitrides and carbonitrides 215
Transport
mutual separation characteristics for the yttrium and lanthanides with chemical vapor transport process mediated by metal chloride gaseous complexes 125
Twinning
shape restoration effect associated with order–disorder transformation in equiatomic AuCu and AuCu–Ga alloys 240
Two phase decomposition
giant magnetoresistance of Cu_3Al–Cu_2MnAl melt-spun ribbons 273

Ultrafine
magnetic studies of nanosized nickel ferrite particles synthesized by the citrate precursor technique 87
Ultrasound-solution treatment
surface and electrode properties of $Zr(V_{0.25}Ni_{0.75})_2$ alloy treated with ultrasound-solution 281
Uranium
synthesis, crystal structure refinement and electrical properties of uranium oxysulfide, UOS 115
Uranium intermetallics
magnetic properties of the $UCo_{1-x}Pt_xAl$ solid solutions 38

Vanadium-based solid solution
influence of oxygen on hydrogen storage and electrode properties for micro-designed V-based battery alloys 257
Vapor complexes
thermodynamic properties of the rare earth element vapor complexes $LaAl_4Cl_{15}$, $CeAl_4Cl_{15}$ and $HoAl_2Cl_9$ 153

X-Ray diffraction
X-Ray study of the nGeTe·$m$$Bi_2Te_3$ mixed layered tetradymite-like compounds 170
X-Ray line profile analysis
effect of alloying, on the microstructure and mechanical properties of Ni_3Al 249
XRD
synthesis and some properties of the phase $Cr_2V_4O_{13}$ 121

Young's modulus
critical review on the elastic properties of transition metal carbides, nitrides and carbonitrides 215
Yttrium-nickel-aluminium alloys
a study of structural and thermodynamic properties of the $YNi_{5-x}Al_x$–hydrogen system 185

Zintl phases
hydrogen stabilization. Nine isotypic orthorhombic A_5Pn_3H phases (among A=Ca, Sr, Ba, Sm, Eu, Yb; Pn=Sb, Bi) formerly described as binary β-Yb_5Sb_3-type compounds 104
Zirconium and hafnium alloys
$(Hf,Zr)_2Fe$ and $Zr_4Fe_2O_{0.6}$ compounds and their hydrides: phase equilibria, crystal structure and magnetic properties 6
Zr-based alloy
surface and electrode properties of $Zr(V_{0.25}Ni_{0.75})_2$ alloy treated with ultrasound-solution 281
Zr-based hydrogen storage alloy
influence of amorphization on electrode performances of AB_2 type hydrogen storage alloys 264